IT Unit 3

Topic 2

# Ch. 2, Data Analytics: Drawing Conclusions, Part 1

**Data Sources,** p 91-107

1. Why is it important to know the source of data and its “chain of custody”?

* The source of data is very important, treat data without an identified source with care and take necessary steps to resolve matters of authenticity. When data has provenance it means the chain of custody is known and therefore it is more reliable.

1. List some easily accessible data sites.

* Libraries: local sources like books or schools
* Government: Melbourne data
* Government agencies: Australian Bureau of Statistics ABS

1. What are the advantages of using different data acquisition techniques?

* Using multiple techniques, a louds different types of data to be collected such as both quantitative and qualitative.

**Acquiring Data,** p 94

1. Distinguish between open & closed questions. List some strengths and weaknesses of both.

* Open question: a question that does not limit the length, type or content, where closed questions is a question with a limited range of possible answer.
* Open Question are better for short to long answer whereas closed are limit answer like multiple choice
* Turning open question into to useful information hard compare to closed question, you have to use coding to get information out of these short answer.

**Faults in questions,** p 96

1. List some types of questions that are not effective.

* Loaded questions contain controversial or unjustified assumptions that may serve to support the hidden agenda
* A leading question directs respondents to answer in certain desired directions

**Conducting interviews,** p 97

1. List some strengths and weaknesses with interviews as a technique for acquiring data.

* Introduce yourself and clarify the purpose of the interview and the way the information will be used.
* Star with easy, quick questions to put nervous interviewees at ease.
* If the information may be personal, follow the spirits of the Australian Privacy Principles (APPs) even if you are not subject to the Privacy Act.
* Have a list of questions prepared so you do not forget them.
* Avoid getting side tracked by irrelevant discussions unless it is formative.
* Give interviewees time to think and talk.
* Do not interrupt answers unless it is obvious that they are irrelevant to volunteer extra information.
* Records interviews for later reference (With the interviewees prior permissions).

**Observing subjects,** p 98

1. What are the strengths and weaknesses of observation?

* It allows you to see how consumers act together and separately
* This technique is deal for situations in which nonverbal communication is important for a complete consumer profile.
* Observation provide a more reliable measurement of actual consumer behaviour rather than self-repot metrics.
* Can improve the quality of an initial behavioural analysis base on demographics, therefore increasing the validity of the research.
* Observation research can include a high degree of researcher bias. Because the observer is human, subconscious opinions on demographics can affect the analysis.
* Observation research doesn’t always return an accurate demographic sample.
* Observation only tells one part of the story. Attitudes and opinions cannot be clearly expressed only through actions, so it may not be the clearest picture possible

**Surveys and questionnaires,** p 99

1. What are the advantages and disadvantages of these techniques?

* Data can be collected in great quality
* Data can be process and analysis very easily
* Follow up question may be impossible
* Respondents may not bother completing lengthy writing response

**Selecting representative samples**, p 104

1. What types of selection bias exist?

* Time Interval: Early termination of trial at a time when its results support a desired conclusion
* Data: Partitioning data with knowledge of the content of thee partitions, and then analysing them with test designed for blindly chosen partition.

**Querying resources,** p 105

1. What is the role of built-in services in databases?

* It a n external entity – whether human or digital, as long as the user requests data using correctly formatted quires that the database services can understand, the database can comply.

1. Give examples of 2 types of queries.

* For example, the query woman living in St Kilda searches two fields, the sex field, for a value representing females e.g. (Females, F) and the suburb field, for records constraining St Kilda

1. What is an application programming interface, (API)?

* API, which programmers create as a gateway so other programs can interact with their software.

1. Why should the sources of data you use be acknowledged?

* The sources of intellectual property (IP) that influence your work should be acknowledged using one of the serval accepted references styles
* American Psychological Association (APA)
* Harvard
* Chicago
* Institute of Electrical Engineers (IEE)